

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave.St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-026544**Date Inspected:** 19-Oct-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** William Sherwood**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

QA randomly observed ABF/JV qualified welder Jorge Lopez continuing to perform fill pass welding on the Complete Joint Penetration (CJP) splice butt joint. The welder was observed manually welding in the 3G (vertical) position utilizing a dual shield Flux Cored Arc Welding (FCAW-G) with E71T-1M, 1/16" diameter wire electrode implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-3040B-3. The joint being welded has a single V-groove butt joint with steel backing bar. ABF Quality Control (QC) William Sherwood was noted monitoring the welding parameters of the welder. QA randomly monitored the welding parameter with readings of 250 amperes, 21.5 volts and 200mm per minute with calculated heat input of 1.61 Kjoules per mm. travel speed which appears in conformance to the contract requirements. During the shift, cover pass welding on the total length of the joint was completed. The welder started flush grinding the weld cover as soon as he finished welding the last section of the splice butt joint which the welder also completed during the shift.

The welder has moved to top deck plate A5 of the same OBG location 12W/13W near the corner of edge plate 'F' and welded the remaining one foot long of the top deck plate A5 Seismic Performance Critical Members (SPCM) splice butt joint. The welder was noted welding root pass to fill pass implementing Caltrans approved WPS ABF-WPS-D15-3040A-1. The plates were preheated to more than 200 degrees Fahrenheit using propylene gas torch prior welding. ABF QC William Sherwood was noted monitoring the welder until the end of the shift as the

# WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

welder continued welding the fill pass.

At the request of Quality Control Field Supervisor, Bonifacio Daquinag, QA has randomly verified the QC VT/MT of the Complete Joint Penetration (CJP) welding of one (1) deck access hole transverse stiffener butt joint. The QA verification was performed to verify that the welding and the VT/MT inspection performed by the QC inspector meet the requirements of the contract documents. At the conclusion of the QA verification it appeared that the weld and the QC inspection complied with the contract documents.

## 1. OBG 8E-PP70.5-E5 NE transverse stiffener inside - QA VT/MT verified

Due to lifting and putting in place of OBG 14E at the job site, most ABF welders were noted assisting other ABF personnel in setting up the OBG 14E. Only minimal welders were noted welding at the West bound OBG and Jorge Lopez was one of them.

At OBG 12W/13W top deck plate A5 outside, ABF welder Jorge Lopez was noted preheating the plates to more than 200 degrees Fahrenheit using propylene gas torch prior welding.



At OBG 12W/13W edge plate 'F' outside, ABF welder Jorge Lopez was observed performing 3G Flux Cored Arc Welding (FCAW-G) welding fill pass to cover pass to replace butt joint.



## Summary of Conversations:

No significant conversation occurred today.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

---

## WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

---

---

<b>Inspected By:</b>	Lizardo, Joselito	Quality Assurance Inspector
----------------------	-------------------	-----------------------------

---

<b>Reviewed By:</b>	Levell, Bill	QA Reviewer
---------------------	--------------	-------------

---